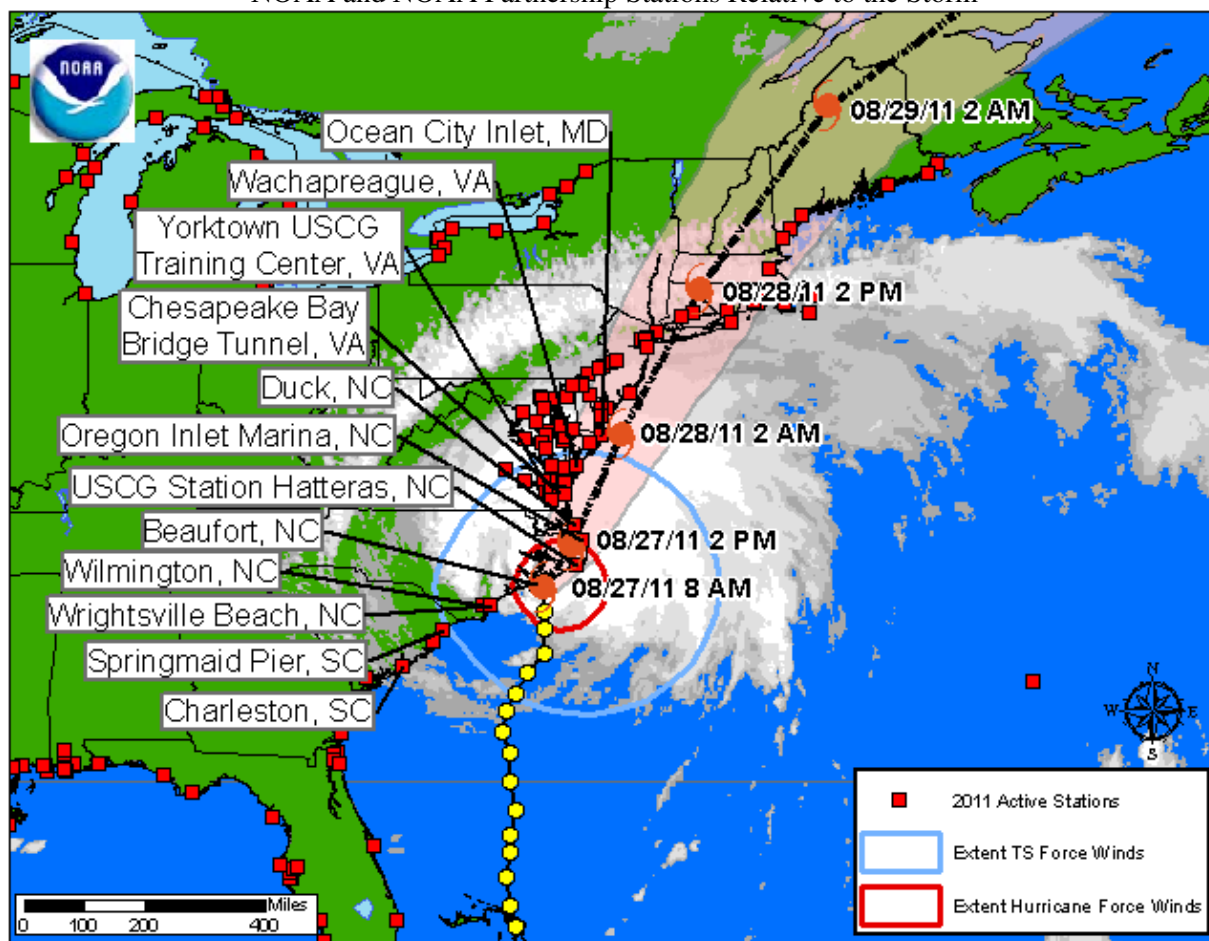




Hurricane IRENE QuickLook
Posted: 09:30 EDT 08/27/2011

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

CENTER OF IRENE MAKES LANDFALL NEAR CAPE LOOKOUT NORTH CAROLINA AT APPROXIMATELY 0800 EDT 08/27/2011

As of 08/27/2011 09:30 EDT, water levels along the North Carolina coast are being significantly affected by Hurricane Irene. Levels between Beaufort, NC and Wachapreague, VA are elevated between 1.1 and 3.0 feet above predictions. Water levels at USCG Hatteras and Oregon Inlet Marina, NC are presently 0.8 to 2.5 feet below predictions. Water levels from Wilmington, NC to Florida are falling back towards predicted values.

Winds continue to rise ahead of the storm and range between 10 and 40 kts with gusts as high as 69 kts (measured at USCG Hatteras, NC.) along the North Carolina coast. Winds around the entrance to the Chesapeake Bay are also rising and range between 20 and 35 kts with gusts up to 40 kts. Barometric pressure continues to fall significantly across the region.

Hurricane IRENE QuickLook, POSTED 09:30 EDT 08/27/2011

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to Mean Lower Low Water are:

Beaufort, NC: Next predicted high tides are 3.9 ft (1.19 m) at 08/27/2011 19:15 EDT and 3.5 ft (1.08 m) at 08/28/2011 07:36 EDT.

USCG Station Hatteras, NC: Next predicted high tides are 0.6 ft (0.19 m) at 08/27/2011 20:15 EDT and 0.7 ft (0.22 m) at 08/28/2011 08:34 EDT.

Oregon Inlet Marina, NC: Next predicted high tides are 1.5 ft (0.44 m) at 08/27/2011 19:19 EDT and 1.3 ft (0.41 m) at 08/28/2011 07:41 EDT.

Duck, NC: Next predicted high tides are 4.2 ft (1.27 m) at 08/27/2011 18:44 EDT and 3.8 ft (1.17 m) at 08/28/2011 07:12 EDT.

Chesapeake Bay Bridge Tunnel, VA: Next predicted high tides are 3.3 ft (0.99 m) at 08/27/2011 19:37 EDT and 3.1 ft (0.94 m) at 08/28/2011 08:03 EDT.

Yorktown USCG Training Center, VA: Next predicted high tides are 2.0 ft (0.89 m) at 08/27/2011 20:34 EDT and 2.8 ft (0.84 m) at 08/28/2011 09:03 EDT.

Wachapreague, VA: Next predicted high tides are 5.1 ft (1.54 m) at 08/27/2011 20:10 EDT and 4.6 ft (1.41 m) at 08/28/2011 08:29 EDT.

Ocean City Inlet, MD: Next predicted high tides are 2.7 ft (0.82 m) at 08/27/2011 19:31 EDT and 2.4 ft (0.73 m) at 08/28/2011 07:42 EDT.

Wrightsville Beach, NC: Next predicted high tides are 5.0 ft (1.54 m) at 08/27/2011 18:44 EDT and 4.6 ft (1.39 m) at 08/28/2011 07:08 EDT.

Wilmington, NC: Next predicted high tides are 5.0 ft (1.52 m) at 08/27/2011 21:02 EDT and 4.7 ft (1.42 m) at 08/28/2011 09:27 EDT.

Charleston, SC: Next predicted high tides are 6.5 ft (1.98 m) at 08/27/2011 19:17 EDT and 5.8 ft (1.78 m) at 08/28/2011 07:43 EDT.

Springmaid Pier, SC: Next predicted high tides are 6.3 ft (1.92 m) at 08/27/2011 18:40 EDT and 5.8 ft (1.76 m) at 08/28/2011 07:11 EDT.

For additional data, please see the [Center for Operational Oceanographic Products & Services](#) website. For information on Highest Astronomical Tide (HAT), NAVD88 and other datums, please see [Tidal Datums](#). For more information or archived products and reports, please see the [Storm QuickLook](#) homepage.

Analyst:CMF

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

HURRICANE IRENE INTERMEDIATE ADVISORY NUMBER 28A

800 AM EDT SAT AUG 27 2011

...CENTER OF IRENE MAKES LANDFALL NEAR CAPE LOOKOUT NORTH CAROLINA...

WATCHES AND WARNINGS

CHANGES IN WATCHES AND WARNINGS WITH THIS ADVISORY...

NONE

SUMMARY OF WATCHES AND WARNINGS IN EFFECT...

A HURRICANE WARNING IS IN EFFECT FOR...

* LITTLE RIVER INLET NORTH CAROLINA NORTHWARD TO SAGAMORE BEACH
MASSACHUSETTS...INCLUDING THE PAMLICO...ALBEMARLE...AND CURRITUCK
SOUNDS...DELAWARE BAY...CHESAPEAKE BAY SOUTH OF DRUM POINT...NEW YORK
CITY...LONG ISLAND...LONG ISLAND SOUND...COASTAL CONNECTICUT AND RHODE
ISLAND...BLOCK ISLAND...MARTHAS VINEYARD AND NANTUCKET

A TROPICAL STORM WARNING IS IN EFFECT FOR...

* SOUTH SANTEE RIVER SOUTH CAROLINA TO LITTLE RIVER INLET
* CHESAPEAKE BAY FROM DRUM POINT NORTHWARD AND THE TIDAL POTOMAC
* NORTH OF SAGAMORE BEACH TO MERRIMACK RIVER

A TROPICAL STORM WATCH IS IN EFFECT FOR...

* MERRIMACK RIVER TO EASTPORT MAINE

INTERESTS IN NEW BRUNSWICK AND NOVA SCOTIA CANADA SHOULD MONITOR THE
PROGRESS OF IRENE.

FOR STORM INFORMATION SPECIFIC TO YOUR AREA IN THE UNITED STATES...INCLUDING
POSSIBLE INLAND WATCHES AND WARNINGS...PLEASE MONITOR PRODUCTS ISSUED BY
YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE.

DISCUSSION AND 48-HOUR OUTLOOK

NATIONAL WEATHER SERVICE DOPPLER INDICATES THAT THE EYE OF IRENE MADE
LANDFALL NEAR CAPE LOOKOUT NORTH CAROLINA AROUND 730 AM EDT. THE ESTIMATED
INTENSITY OF IRENE AT LANDFALL WAS 85 MPH CATEGORY ONE ON THE SAFFIR-SIMPSON
HURRICANE WIND SCALE.

AT 800 AM EDT THE CENTER OF HURRICANE IRENE WAS LOCATED ABOUT 5 MI NNE OF CAPE
LOOKOUT NORTH CAROLINA OR ABOUT 60 MI SW OF CAPE HATTERAS NORTH CAROLINA.
IRENE IS MOVING TOWARD THE NORTH-NORTHEAST NEAR 14 MPH AND THIS GENERAL
MOTION IS EXPECTED TO CONTINUE FOR THE NEXT 24 HOURS. ON THE FORECAST
TRACK...THE CENTER OF IRENE WILL MOVE ACROSS EASTERN NORTH CAROLINA TODAY.
THE HURRICANE IS FORECAST TO MOVE NEAR OR OVER THE MID-ATLANTIC COAST
TONIGHT AND MOVE OVER SOUTHERN NEW ENGLAND ON SUNDAY.

MAXIMUM SUSTAINED WINDS ARE NEAR 85 MPH WITH HIGHER GUSTS. IRENE IS A
CATEGORY ONE HURRICANE ON THE SAFFIR-SIMPSON HURRICANE WIND SCALE. SLIGHT

WEAKENING IS FORECAST AS IRENE CROSSES EASTERN NORTH CAROLINA...BUT IRENE IS FORECAST TO REMAIN A HURRICANE AS IT MOVES NEAR OR OVER THE MID-ATLANTIC STATES AND NEW ENGLAND.

HURRICANE-FORCE WINDS EXTEND OUTWARD UP TO 90 MILES FROM THE CENTER...AND TROPICAL-STORM-FORCE WINDS EXTEND OUTWARD UP TO 260 MILES. A SUSTAINED WIND OF 59 MPH WITH A GUST TO 84 MPH WAS RECENTLY MEASURED AT CAPE HATTERAS NORTH CAROLINA.

THE LATEST MINIMUM CENTRAL PRESSURE ESTIMATED FROM DATA FROM AN AIR FORCE RESERVE HURRICANE HUNTER AIRCRAFT IS 952 MB. A COASTAL MARINE OBSERVING SITE AT CAPE LOOKOUT NORTH CAROLINA RECENTLY REPORTED A PRESSURE OF 954.0 MB.

HAZARDS AFFECTING LAND

WIND...TROPICAL-STORM-FORCE WINDS SHOULD SPREAD NORTHWARD ALONG THE MID-ATLANTIC COAST LATER THIS MORNING WITH HURRICANE CONDITIONS EXPECTED BY THIS AFTERNOON. HURRICANE-FORCE WINDS SHOULD SPREAD NORTHWARD THROUGH THE HURRICANE WARNING AREA DURING THE DAY. TROPICAL STORM CONDITIONS ARE EXPECTED TO REACH SOUTHERN NEW ENGLAND TONIGHT WITH HURRICANE CONDITIONS EXPECTED ON SUNDAY.

STORM SURGE...AN EXTREMELY DANGEROUS STORM TIDE WILL RAISE WATER LEVELS BY AS MUCH AS 5 TO 9 FEET ABOVE GROUND LEVEL IN THE HURRICANE WARNING AREA IN NORTH CAROLINA...INCLUDING THE ALBEMARLE AND PAMLICO SOUNDS. STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 4 TO 8 FEET ABOVE GROUND LEVEL WITHIN THE HURRICANE WARNING AREA FROM THE NORTH CAROLINA/VIRGINIA BORDER NORTHWARD TO CAPE COD INCLUDING SOUTHERN PORTIONS OF THE CHESAPEAKE BAY AND ITS TRIBUTARIES. NEAR THE COAST...THE SURGE WILL BE ACCOMPANIED BY LARGE...DESTRUCTIVE...AND LIFE-THREATENING WAVES. STORM SURGE VALUES ARE VERY LOCATION-SPECIFIC...AND USERS ARE URGED TO CONSULT PRODUCTS ISSUED BY THEIR LOCAL NATIONAL WEATHER SERVICE OFFICES.

RAINFALL...IRENE IS EXPECTED TO PRODUCE RAINFALL ACCUMULATIONS OF 6 TO 10 INCHES...WITH ISOLATED MAXIMUM AMOUNTS OF 15 INCHES...FROM EASTERN NORTH CAROLINA NORTHWARD THROUGH THE MID-ATLANTIC STATES INTO EASTERN NEW YORK AND WESTERN NEW ENGLAND. THESE RAINS COULD CAUSE WIDESPREAD FLOODING AND LIFE-THREATENING FLASH FLOODS.

SURF...LARGE SWELLS GENERATED BY IRENE ARE AFFECTING PORTIONS OF THE COAST OF THE SOUTHEASTERN UNITED STATES. THESE SWELLS WILL CAUSE LIFE-THREATENING SURF AND RIP CURRENT CONDITIONS.

TORNADOES...ISOLATED TORNADOES ARE POSSIBLE OVER EXTREME EASTERN NORTH CAROLINA TODAY.

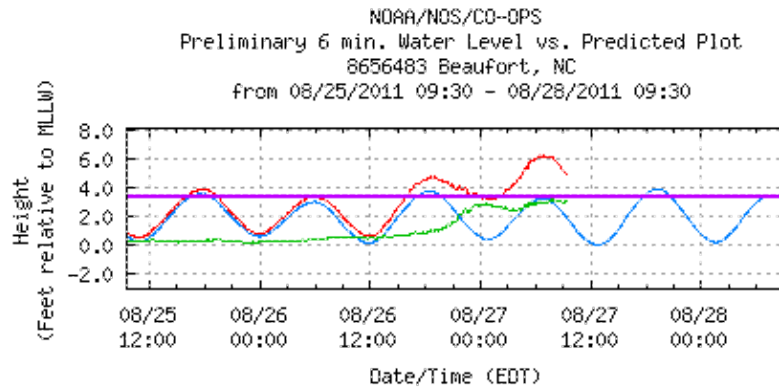
FORECASTER BROWN

Hurricane IRENE QuickLook, POSTED 09:30 EDT 08/27/2011

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: [Beaufort - Water Level](#), [Beaufort - Winds](#), [Beaufort - Barometric](#), [USCG Station Hatteras - Water Level](#), [USCG Station Hatteras - Winds](#), [Oregon Inlet Marina - Water Level](#), [Oregon Inlet Marina - Winds](#), [Duck - Water Level](#), [Duck - Winds](#), [Duck - Barometric](#), [Duck - Air/Water Temp](#), [Chesapeake Bay Bridge Tunnel - Water Level](#), [Chesapeake Bay Bridge Tunnel - Winds](#), [Yorktown USCG Training Center - Water Level](#), [Yorktown USCG Training Center - Winds](#), [Wachapreague - Water Level](#), [Wachapreague - Winds](#), [Ocean City Inlet - Water Level](#), [Wilmington - Water Level](#), [Wrightsville Beach - Water Level](#), [Wrightsville Beach - Winds](#), [Wrightsville Beach - Barometric](#), [Springmaid Pier - Water Level](#), [Springmaid Pier - Winds](#), [Charleston - Water Level](#), [Charleston - Winds](#),

Beaufort, NC - Return to List



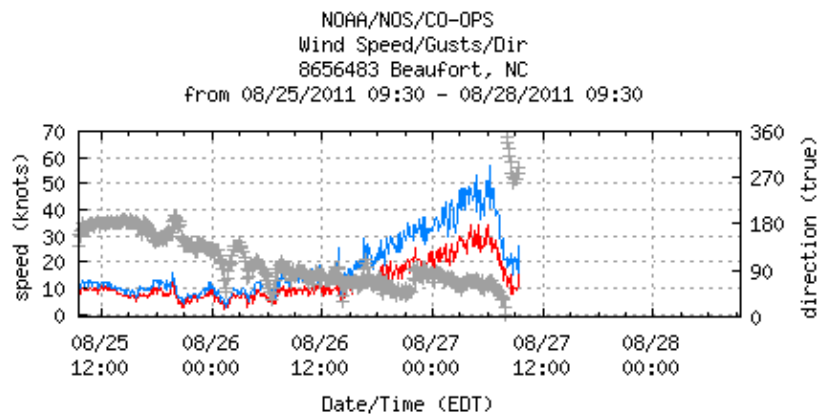
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 08/27/2011 09:18 (EDT)

Relative to MLLW: **Observed: 5.02 ft.** **Predicted: 1.95 ft.** **Residual: 3.07 ft.**

Historical Maximum Water Level: Sep 16 1999, 2.74 ft. above MHHW

Beaufort, NC - Return to List

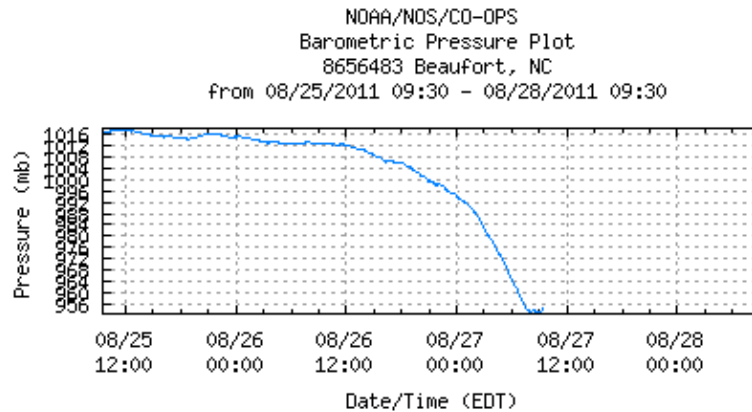


speed — gusts — direction +

Last Observed Sample: 08/27/2011 09:24 (EDT)

Wind Speed: 21 knots **Gusts: 26 knots** **Direction: 290° T**

Beaufort, NC - Return to List

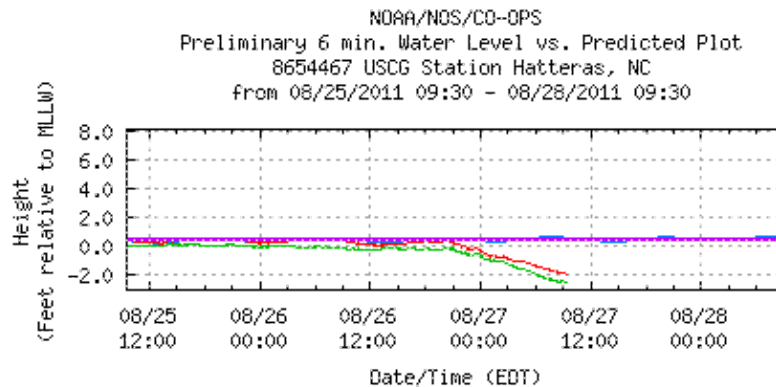


barometric pressure —

Last Observed Sample: 08/27/2011 09:24 (EDT)

Barometric Pressure: 954.3 mb

USCG Station Hatteras, NC - Return to List



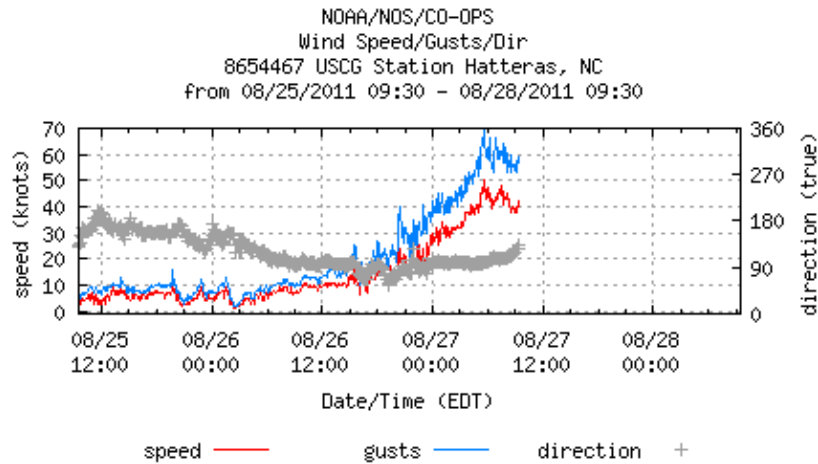
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 08/27/2011 09:18 (EDT)

Relative to MLLW: **Observed: -1.96 ft. Predicted: 0.60 ft. Residual: -2.56 ft.**

Historical Maximum Water Level: , 0 ft. above MHHW

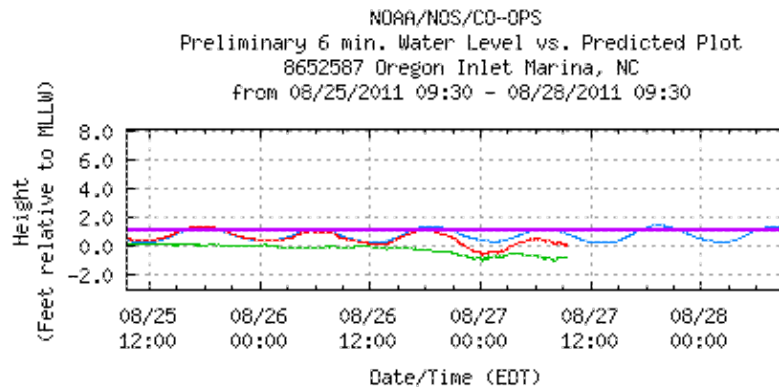
USCG Station Hatteras, NC - Return to List



Last Observed Sample: 08/27/2011 09:24 (EDT)

Wind Speed: 40 knots Gusts: 57 knots Direction: 128° T

Oregon Inlet Marina, NC - Return to List

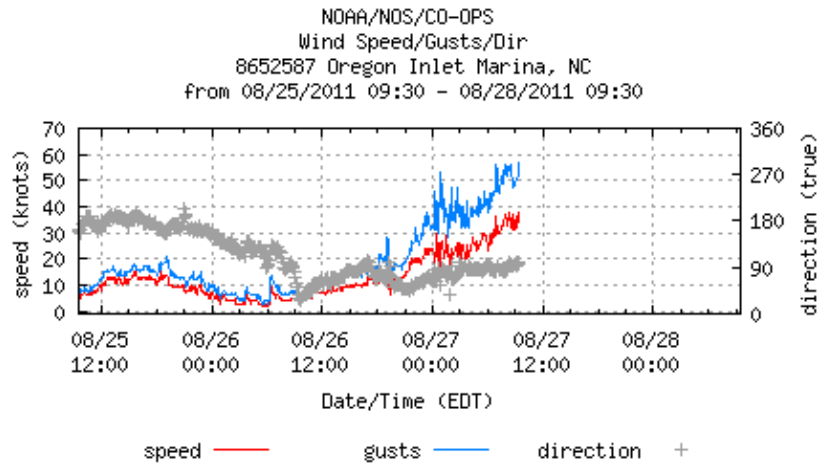


Last Observed Sample: 08/27/2011 09:24 (EDT)

Relative to MLLW: Observed: 0.03 ft. Predicted: 0.86 ft. Residual: -0.83 ft.

Historical Maximum Water Level: Sep 16 1999, 4.48 ft. above MHHW

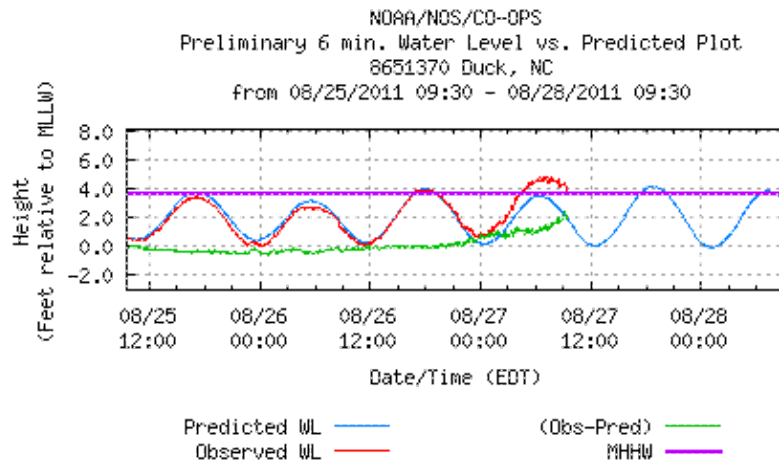
Oregon Inlet Marina, NC - Return to List



Last Observed Sample: 08/27/2011 09:24 (EDT)

Wind Speed: 38 knots Gusts: 57 knots Direction: 100° T

Duck, NC - Return to List

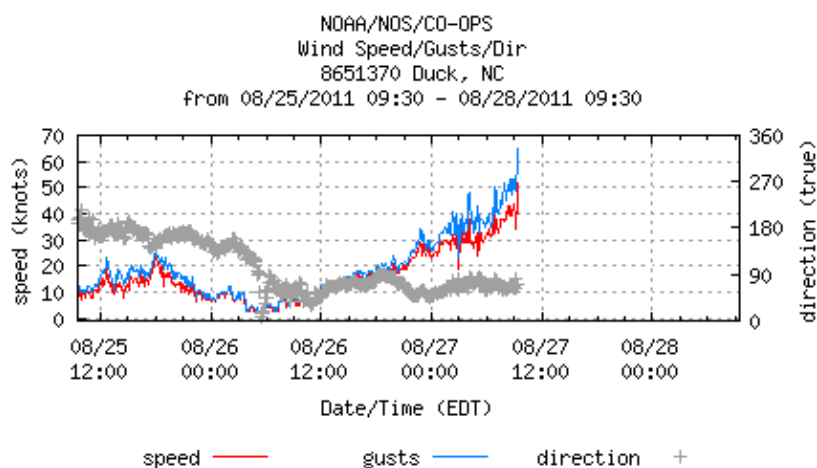


Last Observed Sample: 08/27/2011 09:24 (EDT)

Relative to MLLW: Observed: 3.87 ft. Predicted: 1.94 ft. Residual: 1.93 ft.

Historical Maximum Water Level: Aug 30 1999, 3.23 ft. above MHHW

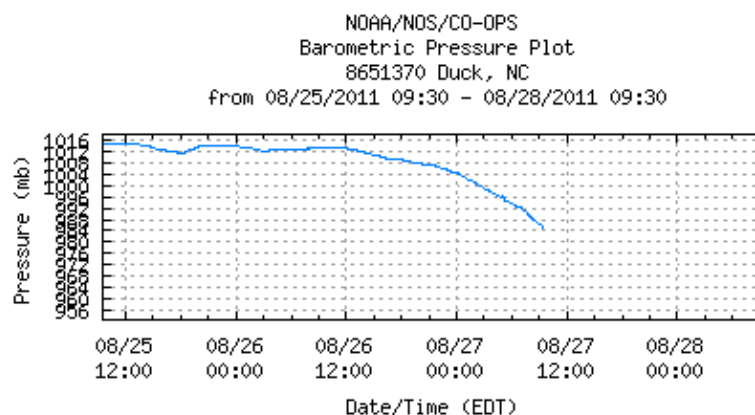
Duck, NC - Return to List



Last Observed Sample: 08/27/2011 09:24 (EDT)

Wind Speed: 52 knots Gusts: 65 knots Direction: 72° T

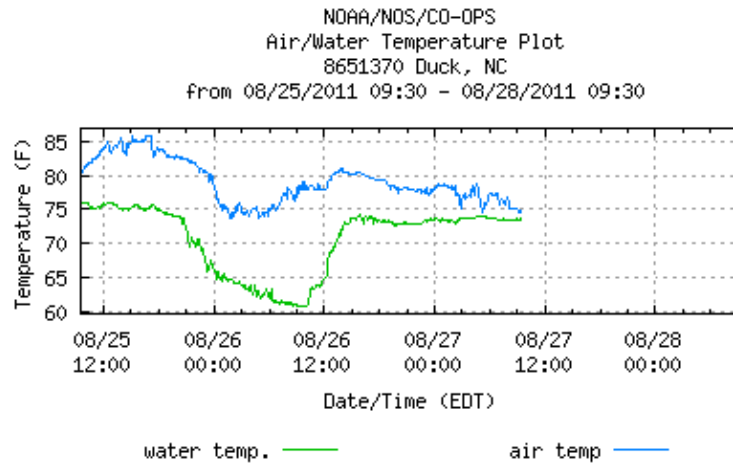
Duck, NC - Return to List



Last Observed Sample: 08/27/2011 09:24 (EDT)

Barometric Pressure: 985.2 mb

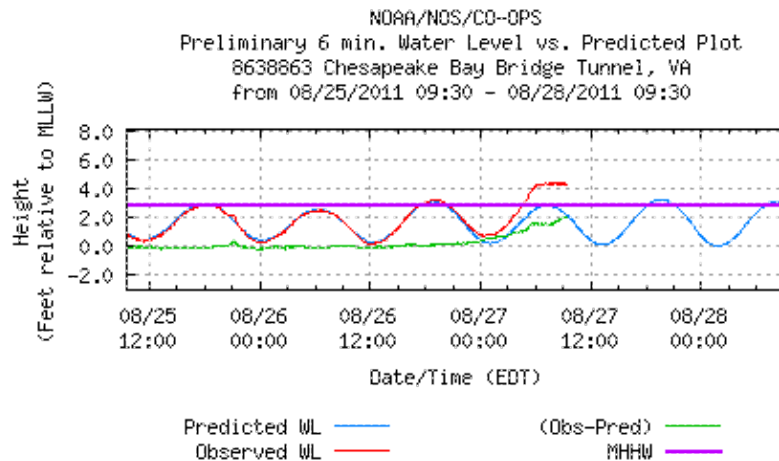
Duck, NC - Return to List



Last Observed Sample: 08/27/2011 09:24 (EDT)

Water Temperature: 73.6° F Air Temperature: 74.8° F

Chesapeake Bay Bridge Tunnel, VA - Return to List

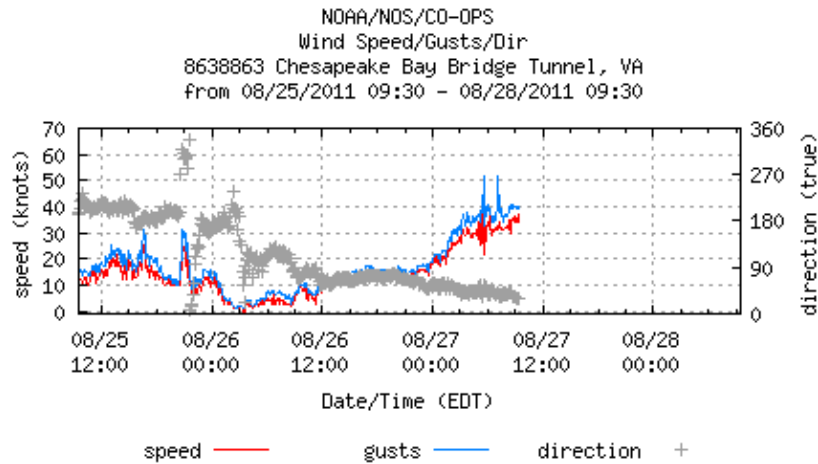


Last Observed Sample: 08/27/2011 09:18 (EDT)

Relative to MLLW: Observed: 4.24 ft. Predicted: 2.21 ft. Residual: 2.03 ft.

Historical Maximum Water Level: Feb 5 1998, 3.68 ft. above MHHW

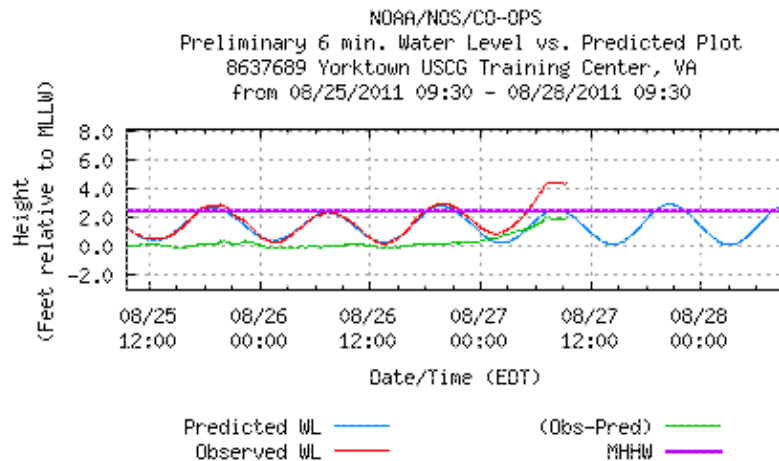
Chesapeake Bay Bridge Tunnel, VA - Return to List



Last Observed Sample: 08/27/2011 09:24 (EDT)

Wind Speed: 34 knots Gusts: 39 knots Direction: 28° T

Yorktown USCG Training Center, VA - Return to List

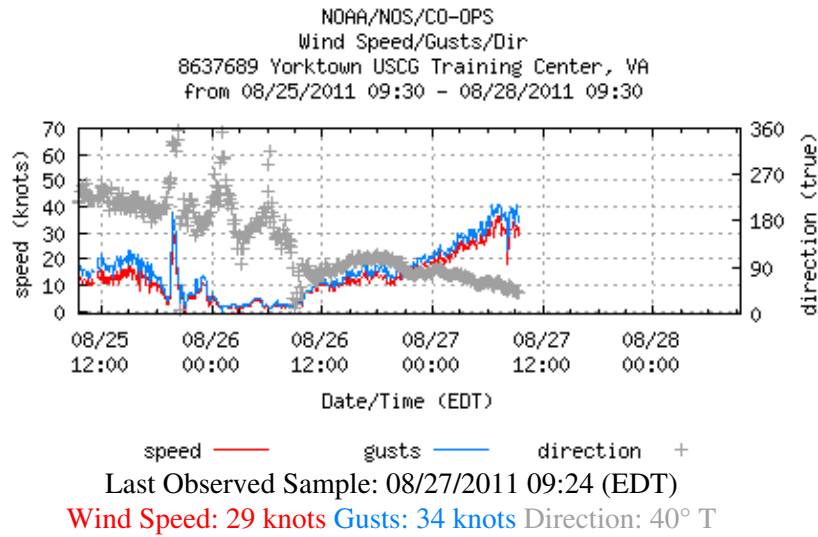


Last Observed Sample: 08/27/2011 09:24 (EDT)

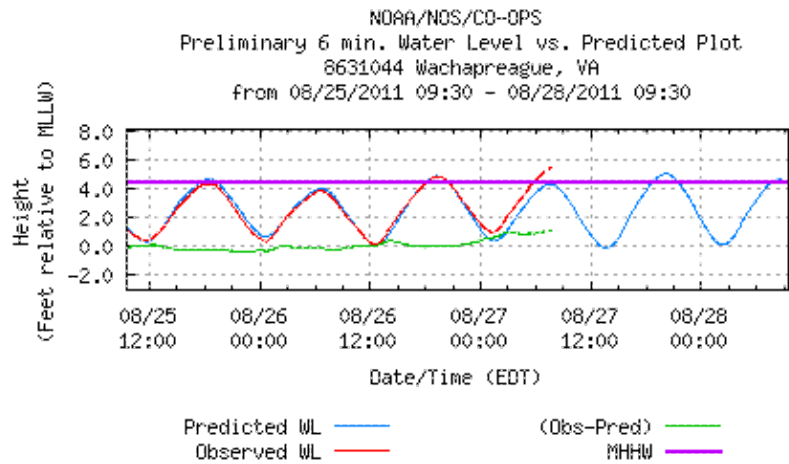
Relative to MLLW: Observed: 4.38 ft. Predicted: 2.33 ft. Residual: 2.05 ft.

Historical Maximum Water Level: Nov 12 2009, 4.27 ft. above MHW

Yorktown USCG Training Center, VA - Return to List

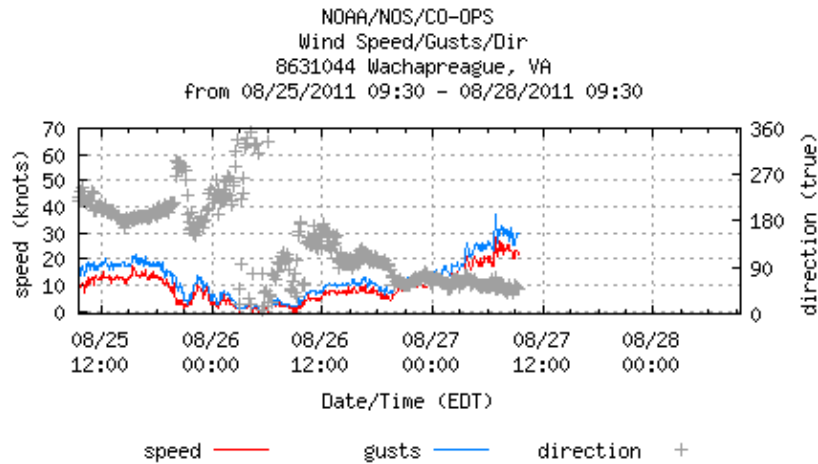


Wachapreague, VA - Return to List



Last Observed Sample: 08/27/2011 07:36 (EDT)
Relative to MLLW: Observed: 5.47 ft. Predicted: 4.33 ft. Residual: 1.14 ft.
Historical Maximum Water Level: Feb 5 1998, 4.41 ft. above MHHW

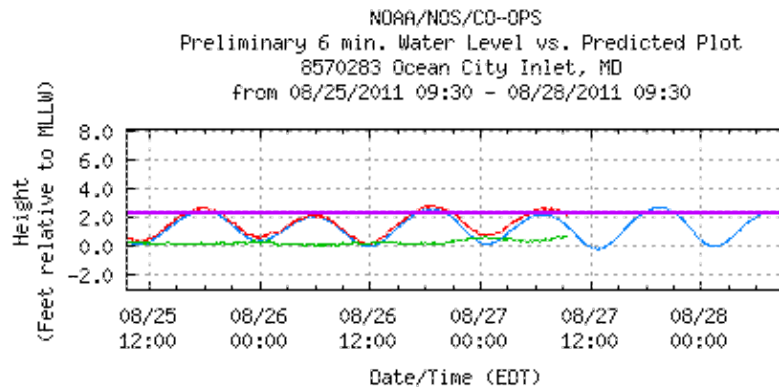
Wachapreague, VA - Return to List



Last Observed Sample: 08/27/2011 09:18 (EDT)

Wind Speed: 22 knots Gusts: 30 knots Direction: 47° T

Ocean City Inlet, MD - Return to List

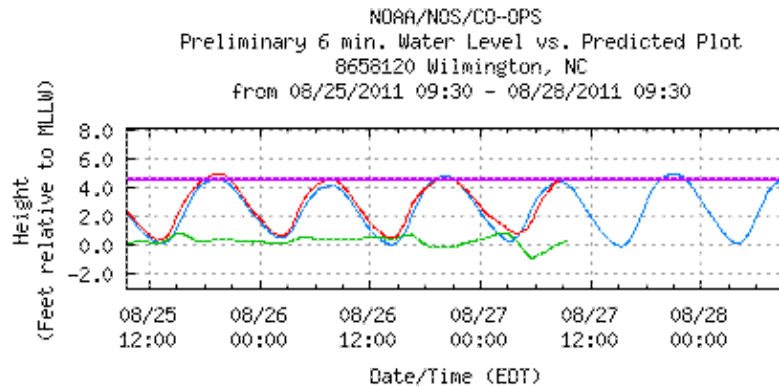


Last Observed Sample: 08/27/2011 09:18 (EDT)

Relative to MLLW: Observed: 2.19 ft. Predicted: 1.46 ft. Residual: 0.73 ft.

Historical Maximum Water Level: Feb 5 1998, 3.61 ft. above MHHW

Wilmington, NC - Return to List



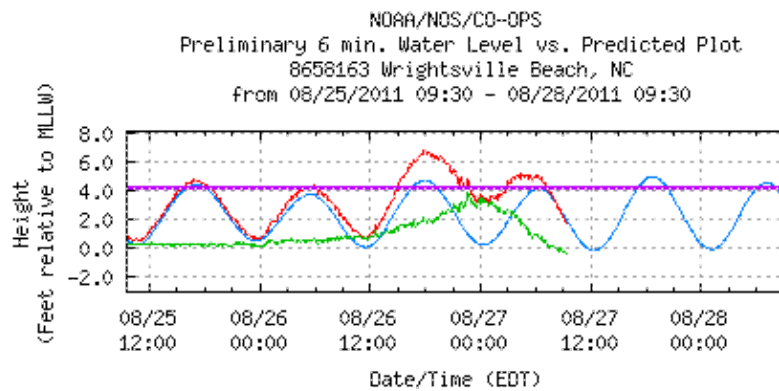
Predicted WL ——— (Obs-Pred) ———
Observed WL ——— MHHW ———

Last Observed Sample: 08/27/2011 09:18 (EDT)

Relative to MLLW: **Observed: 4.59 ft.** **Predicted: 4.29 ft.** **Residual: 0.30 ft.**

Historical Maximum Water Level: Oct 15 1954, 3.47 ft. above MHHW

Wrightsville Beach, NC - Return to List



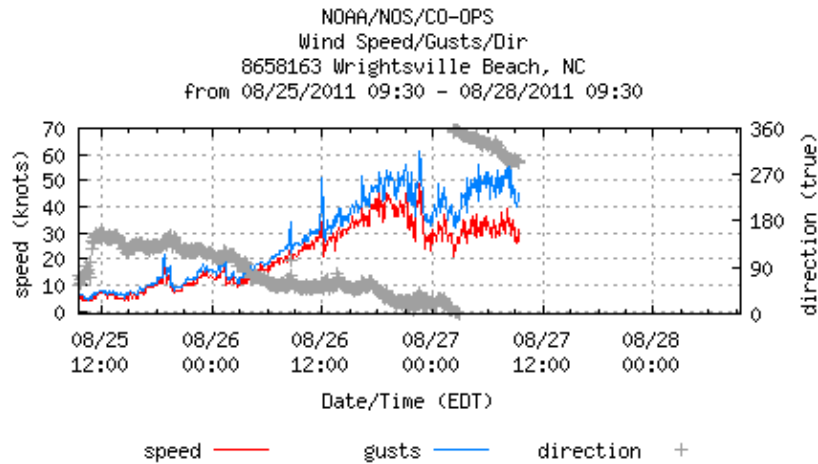
Predicted WL ——— (Obs-Pred) ———
Observed WL ——— MHHW ———

Last Observed Sample: 08/27/2011 09:18 (EDT)

Relative to MLLW: **Observed: 1.69 ft.** **Predicted: 2.02 ft.** **Residual: -0.33 ft.**

Historical Maximum Water Level: Sep 25 2008, 2.81 ft. above MHHW

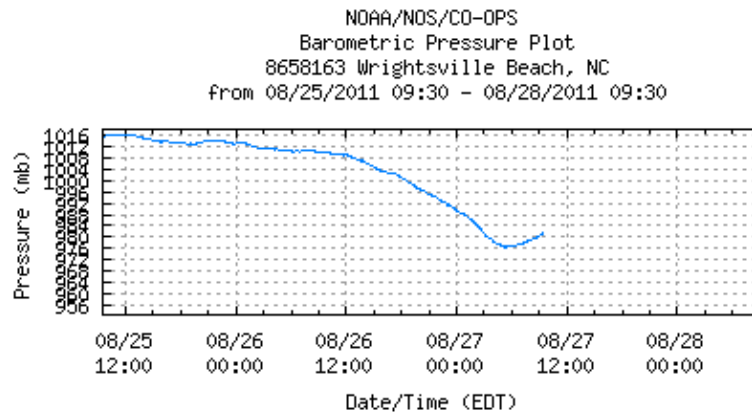
Wrightsville Beach, NC - Return to List



Last Observed Sample: 08/27/2011 09:24 (EDT)

Wind Speed: 27 knots Gusts: 45 knots Direction: 297° T

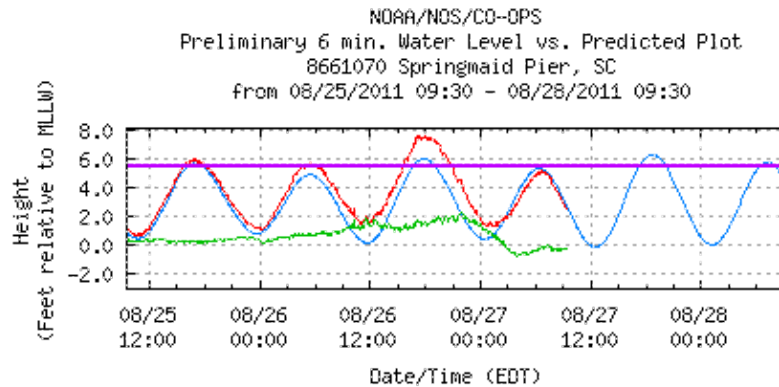
Wrightsville Beach, NC - Return to List



Last Observed Sample: 08/27/2011 09:24 (EDT)

Barometric Pressure: 981.4 mb

[Springmaid Pier, SC - Return to List](#)



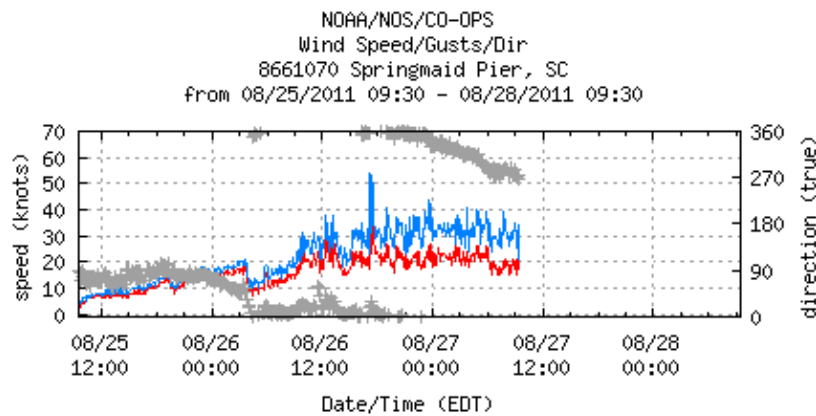
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 08/27/2011 09:24 (EDT)

Relative to MLLW: **Observed: 2.52 ft.** **Predicted: 2.72 ft.** **Residual: -0.20 ft.**

Historical Maximum Water Level: Jan 1 1987, 3.65 ft. above MHHW

[Springmaid Pier, SC - Return to List](#)

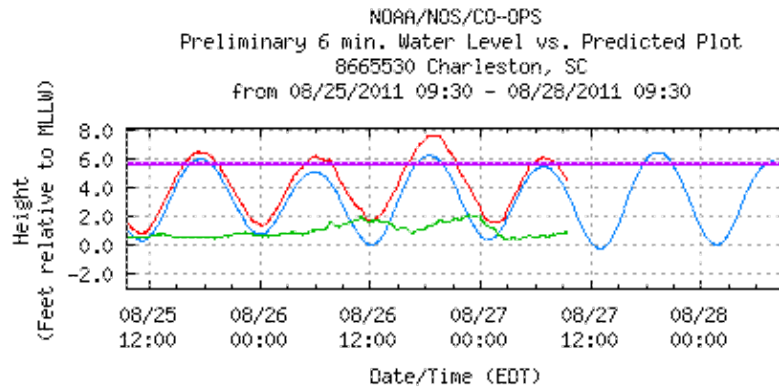


speed — gusts — direction +

Last Observed Sample: 08/27/2011 09:24 (EDT)

Wind Speed: 17 knots **Gusts: 21 knots** **Direction: 266° T**

[Charleston, SC - Return to List](#)



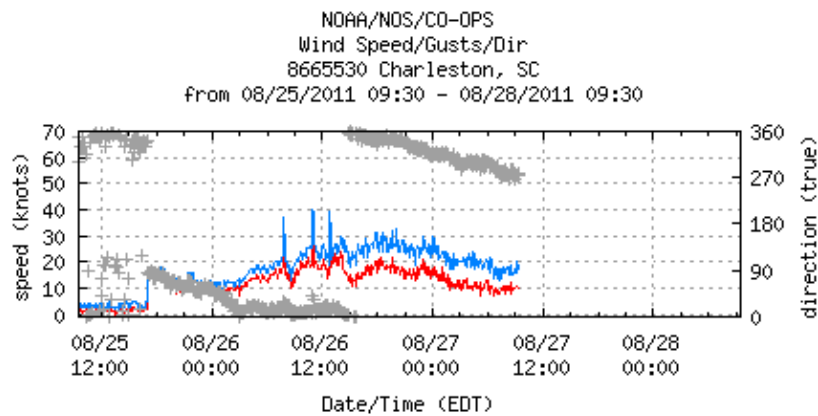
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 08/27/2011 09:24 (EDT)

Relative to MLLW: **Observed: 4.50 ft.** **Predicted: 3.62 ft.** **Residual: 0.88 ft.**

Historical Maximum Water Level: Sep 21 1989, 6.76 ft. above MHHW

[Charleston, SC - Return to List](#)



speed — gusts — direction +

Last Observed Sample: 08/27/2011 09:24 (EDT)

Wind Speed: 10 knots **Gusts: 19 knots** **Direction: 279° T**

Hurricane IRENE QuickLook, POSTED 09:30 EDT 08/27/2011

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS)
National Oceanic and Atmospheric Administration | U.S. Department of Commerce